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ABSTRACT

This report examines the relationship between Maryland students' academic performance and experiences in high school and how well they did in their initial year in college. It includes students who graduated from a Maryland high school in the 1993-94 school year and who enrolled at a Maryland college or university during the 1994-95 academic year. The report's two sections present data on: (1) differences between the college performance of students who did (core) or did not complete (non-core) a college preparatory curriculum in high school and (2) results of a multiple regression analysis to identify factors that best predict first-year college performance. Core students performed better than non-core on measures of college achievement and non core students were more likely to need remediation. Core students attained higher grades in first college math and English courses and earned a grade point average of 2.5 in college versus 2.2 for non-core students. The best predictors of college grade point average (GPA) were high school GPA followed by Scholastic Assessment Test verbal score, average grades in high school English and social studies courses, number of years of foreign language, and enrollment in honors English and calculus. Data tables by institution, jurisdiction, gender, and race compare core versus non core students. Tables also provide results of the multiple regression analysis. (JLS)

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ED 404 976

MARYLAND HIGHER EDUCATION COMMISSION

RELATIONSHIP BETWEEN HIGH SCHOOL AND COLLEGE PERFORMANCE BY MARYLAND STUDENTS

- STUDENT OUTCOME AND ACHIEVEMENT REPORT -

NOVEMBER 1996

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INTRODUCTION

The General Assembly passed legislation in 1988 that required the Maryland Higher Education Commission "to improve information to high schools and local school systems concerning the performance of their graduates at the college level."

In 1990, the Commission established the Student Outcome and Achievement Report (SOAR) to fulfill this mandate. The high school graduate system of SOAR collects information about several aspects of the college performance of new high school graduates: remedial work needed in math, English and reading; grades in their first math and English courses; and cumulative grade point average. All public two- and four-year campuses in Maryland and 13 state-aided independent institutions currently participate in SOAR.

In addition to providing information that can be used for tracking student outcomes at the state level, SOAR was intended to be a tool to help local educators with the evaluation of high school preparatory programs, curriculum development, counseling, and the establishment of education policy. For the past four years, county superintendents and high school principals have received annual reports of how well students from their particular schools performed at the college level. In an effort to determine the effectiveness of these reports, the Secretary of Higher Education and the Secretary of Education charged a task force in the fall of 1995 with the responsibility of reviewing the content and procedures of SOAR.

One of the recommendations of the task force was that the data collection and analysis of SOAR be enhanced by adding data about students' high school experiences. This would provide a better understanding of the factors that influence collegiate academic performance. Consequently, the Commission staff reached agreements with The College Board, which administers the Scholastic Assessment Test (SAT), and the American College Testing Program (ACT) to supply this information.

Students who take the SAT or ACT complete a comprehensive questionnaire asking about their high school performance and experiences as well as family and personal characteristics. Included are the courses they have taken in various subjects and their grades, the years studied in specific academic areas, whether they were enrolled in honors classes, and their grade point average and rank in class. This information was supplied to the Commission and matched by social security number to the SOAR data.

This report draws on the combined sets of data to examine the relationship between students' academic performance and experiences in high school and how well they did in their initial year in college. Specifically, it looks at students who graduated from a Maryland high school in the 1993-1994 school year who enrolled at a Maryland college or university during the 1994-1995 academic year. The report contains two sections. The first examines the differences between the college performance of students who did

or did not complete a college preparatory curriculum in high school. The second contains the results of a multiple regression analysis which seeks to identify the factors that best predict first-year college performance.

Limitations of the Data

These are the limitations inherent in the SOAR data:

1. No information could be collected about the high school experiences of students who did not take the SAT or ACT. Hence, about 30 percent of the first-year college students were not included in this study. Most of these individuals attended community colleges, which have open-door admissions.

2. The information on high school experiences is collected through a questionnaire completed by students when they take the SAT or ACT. Hence, its accuracy depends on the veracity of those completing the questionnaire. A recent ACT study of the reliability of self-reported data found that students were truthful in supplying information about their courses and grades.

3. The content of courses taken in specific subject areas may vary among schools and even within a school.

4. The definition of remediation is determined by each college and university. In addition, campuses have differing policies with regard to the identification and placement of remedial students, including the use of a wide assortment of tests and cut-off scores. Hence, remediation rates are not comparable across institutions.

COLLEGE PERFORMANCE OF CORE AND NON CORE STUDENTS

The academic performance of students in their first year of study at a Maryland campus was examined in terms of whether they did or did not take a college-preparatory course of study in high school. Students who did complete a college-recommended curriculum were called "core" in this report; all others, "non core". Students were assessed on the basis of their need for remedial assistance in math, English and reading; grades in their first English and math courses, and cumulative grade point average. The information was presented by institution, jurisdiction, gender and race (see Tables 1 to 12).

The categorization of students as "core" or "non core" depended on whether the student completed a course of study that closely fit the freshmen admissions requirements of the University of Maryland System. To be included as "core", a student had to have taken all of the following in high school:

- 4 or more years of English
- 3 or more years of mathematics
- 3 or more years of social science or history
- 2 or more years of natural science
- 2 or more years of foreign languages

Students who did not fulfill this exact curriculum were deemed "non core." UMS' requirements differ very slightly from those above: students must take two years of a laboratory science, have two or more years of the same foreign language, and complete three specific math courses: two years of algebra and one of geometry. Integration of these additional requirements into the "core" definition was not possible because of the nature of the SAT/ACT data.

Core students performed better than non core students on every measure of college academic achievement. Fewer core students required remedial assistance in math, English and reading. Core students also earned higher grades in their initial math and English courses in college and had higher grade point averages after their first year. With very few exceptions, core students outperformed non core students regardless of the county or region in which they attended high school, the specific college or university at which they were enrolled, or on the basis of race or gender.

Remediation

Of the non core students, 38 percent needed remedial assistance in math. This compared to 24 percent for core students. Twice as many non core students (24 percent) than core students (12 percent) required remediation in English and reading. Nonetheless, it is sobering that nearly one-quarter of all students who take a college-preparatory curriculum in high school, which includes three years of mathematics, are still assessed for remediation in math.

More than one-third (35 percent) of the core students at the community colleges required remedial help in math, and one-fifth needed remediation in English and reading. Half of the non core community college students were assessed for remediation in math, 35 percent in English, and 33 percent in reading. Baltimore City Community College had among the highest number of students needing remediation. Sixty percent or more of the core students, and at least three-fourths of the non core students, required some form of remedial help. Among the public four-year institutions, three historically black campuses--Bowie, Coppin and UMES--had the largest percentage of students needing remediation.

Seventeen percent of the core students at public four-year campuses were assessed as needing math remediation, as were 6 percent in English and reading. More than one-fifth (21 percent) of the non core students required help in math, 11 percent in English, and 12 percent in reading.

A greater percentage of African-Americans than other races needed remedial help. Of the African-American students who completed a college preparatory curriculum, 38 percent required remediation in math, 24 percent in English, and 25 percent in reading. A majority of non-core African-American students (53 percent) were assessed for remediation in math, as were 43 percent in English and reading.

Grade in First Math Course

Core students statewide earned an average grade of 2.4 (on a 4.0 scale) in their first math course in college, compared to 2.1 for non core students. A somewhat greater percentage of core students (76 percent) achieved a "C" or better than did non core students (70 percent). The lowest math grades of any jurisdiction were received by students who attended high school in Prince George's County (2.1 for core students and 1.9 for non core students). The highest was achieved by Western Maryland students.

Women tended to earn noticeably higher math grades than did men, both among core and non core students. The math grades of African Americans (2.2 for core students and 1.9 for non core students) lagged behind those of whites and Asians. Nonetheless, a solid majority of African-American students (73 percent of the core and 61 percent of the non core) achieved at least a "C" in their first math course.

Grade in First English Course

Core students in Maryland attained an average grade of 2.6 in their initial English course in college, compared to 2.3 for non core students. A substantial majority of both core (88 percent) and non core students (81 percent) attained a "C" or better in the first college English course. Students who attended Western Maryland high schools led the state in grades in college English.

Both core and non core women earned sharply higher grades in their first English course than did their male counterparts.

Grade Point Average

Statewide, core students earned a cumulative grade point average in college of 2.5, compared to 2.2 for non-core students. The grade point averages of women, both core and non core, greatly exceeded those of men. African-American students had lower grade point averages (2.2 for core and 1.9 for non core) than those of other races.

FACTORS AFFECTING COLLEGE PERFORMANCE

An examination was made of the relationship between the high school experiences and background characteristics of students and their performance in college. The intention was to identify factors that might help to predict college success, thus helping high school teachers and guidance counselors to advise students better on preparation for higher education.

Method

A multiple regression analysis was conducted, using the first math and English grades and cumulative grade point average as measures of collegiate performance and 66 items on the SAT questionnaire plus some SOAR demographic data as indicators of high school experiences or student background. The ACT information, which was used in differentiating between core and non core students, was not included in this particular part of the study because the comparatively small number of students who took this test could have distorted the results.

Four steps were employed in the analysis. The first was to build a model from the existing data that would contain only relevant variables--those that were good predictors of college performance. A stepwise selection approach was implemented. The only variables that were retained were those that met the standard .05 significance criterion for each of the college performance variables. This process eliminated the great majority of the variables representing high school experiences and background attributes. The second step was to calculate a correlation coefficient between each college performance variable and each high school experiences variable (and a coefficient among each of the high school experiences variables). The third step was to conduct a multiple regression analysis entering all of the high school experiences variables simultaneously and examining their relationship with each of the college performance variables separately. If a high school experiences variable did not achieve a *t* significance level of .05 on the multiple regression analysis and did not have a correlation coefficient of at least .1 in its relationship with the college performance variable, it was eliminated. The fourth step was to implement another series of multiple regression analyses, one for each of the college performance variables. The remaining high school experiences variables were entered individually in order of its strength. The results are displayed in Tables 13, 14 and 15.

The factors which, by themselves, emerged as the best predictors of college performance ($t < .05$) are as follows in the order of their strength:

First Math Grade	High School Grade Point Average Average Grade in High School Math Courses SAT Math Score Whether Student Was Enrolled in Honors Math Course Whether Student Was Enrolled in Honors Languages Course Type of Collegiate Institution Gender
First English Grade	High School Grade Point Average SAT Verbal Score Average Grade in High School English Courses Whether Student Was Enrolled in Honors English Course Years Studied in Foreign Languages Gender
Grade Point Average	High School Grade Point Average SAT Verbal Score Average Grade in High School English Courses Average Grade in High School Social Science Courses Whether Student Was Enrolled in Honors English Course Whether Student Was Enrolled in Honors Calculus Course Years Studied in Foreign Languages Gender

By far, the best predictor of college performance for all three variables was student high school grade average. The average grade in high school math courses and whether the student was in honors math were good predictors of the first college math grade, as was the SAT math score. The average grade in high school English courses and whether the student was in honors English provided a strong indication of how they would perform in their initial college English course, as did the SAT verbal score. Different foreign language indicators were important predictors of student grades in the first math course (whether the student was enrolled in a honors language course) and the first English course (number of years studied in foreign languages).

Strong predictors of college grade point average, beyond the student's high school grade point average, were the SAT verbal score, the average grade in high school English and social studies courses, the number of years of foreign language study, and enrollment in honors English and calculus.

Interestingly, gender was a significant (although the least powerful) predictor of college performance on all three of the variables--even after controlling for all of the other high school experiences and demographic factors. The first math and English course grades and cumulative grade point averages of women easily outpaced those of men in this study.

Table 1

Percent of Core and Non Core Curriculum Students Needing Remediation in College (By Jurisdiction)

	Math		English		Reading	
	Core	Non-Core	Core	Non-Core	Core	Non-Core
Anne Arundel	24%	37%	9%	17%	15%	24%
Baltimore City	29%	45%	21%	38%	21%	40%
Baltimore	19%	32%	11%	24%	15%	27%
Frederick	27%	50%	13%	27%	7%	13%
Lower Shore	10%	21%	12%	22%	15%	33%
Somerset	14%	38%	11%	31%	19%	56%
Wicomico	7%	9%	8%	18%	12%	29%
Worchester	13%	32%	19%	24%	19%	29%
Mid Maryland	17%	26%	12%	25%	7%	19%
Carroll	10%	16%	11%	17%	3%	9%
Howard	22%	32%	12%	30%	9%	26%
Montgomery	22%	34%	8%	19%	6%	17%
Prince George's	32%	46%	15%	31%	16%	30%
Southern Maryland	19%	30%	11%	21%	11%	22%
Calvert	18%	19%	11%	16%	7%	8%
Charles	17%	31%	13%	20%	14%	26%
St. Mary's	22%	35%	11%	25%	10%	25%
Susquehanna	28%	46%	9%	20%	6%	12%
Cecil	20%	45%	14%	22%	15%	31%
Harford	30%	46%	8%	19%	4%	7%
Upper Shore	15%	33%	8%	29%	6%	21%
Caroline	12%	27%	3%	20%	6%	13%
Dorchester	6%	55%	2%	36%	2%	27%
Kent	16%	31%	7%	31%	7%	15%
Queen Anne's	23%	25%	17%	31%	12%	25%
Talbot	14%	39%	9%	28%	0%	22%
Western Maryland	36%	49%	17%	26%	8%	16%
Allegany	29%	39%	14%	27%	9%	20%
Garrett	33%	53%	12%	21%	10%	16%
Washington	43%	58%	21%	28%	7%	11%
ALL MARYLAND	**24%**	**38%**	**12%**	**24%**	**12%**	**24%**

Table 2
Performance in First College Math Course of Core and Non Core Curriculum Students (By Jurisdiction)

	% With 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Anne Arundel	77%	74%	2.4	2.2
Baltimore City	77%	73%	2.3	2.0
Baltimore	77%	66%	2.4	2.0
Frederick	77%	75%	2.2	2.2
Lower Shore	80%	74%	2.5	2.3
Somerset	79%	58%	2.5	2.0
Wicomico	85%	81%	2.6	2.7
Worchester	69%	71%	2.3	1.8
Mid Maryland	80%	78%	2.5	2.3
Carroll	83%	83%	2.5	2.3
Howard	78%	75%	2.4	2.3
Montgomery	74%	71%	2.3	2.1
Prince George's	69%	62%	2.1	1.9
Southern Maryland	83%	67%	2.5	2.2
Calvert	79%	67%	2.4	2.1
Charles	83%	72%	2.5	2.4
St. Mary's	86%	60%	2.5	1.9
Susquehanna	76%	78%	2.4	2.4
Cecil	71%	77%	2.2	2.4
Harford	77%	78%	2.4	2.3
Upper Shore	78%	83%	2.3	2.4
Caroline	88%	88%	2.9	2.4
Dorchester	72%	67%	2.0	2.0
Kent	82%	100%	2.3	3.0
Queen Anne's	72%	100%	2.1	2.5
Talbot	80%	40%	2.3	1.8
Western Maryland	84%	78%	2.7	2.5
Allegany	80%	74%	2.4	2.4
Garrett	79%	89%	2.8	2.7
Washington	90%	79%	2.9	2.6
ALL MARYLAND	**76%**	**70%**	**2.4**	**2.1**

Table 3
Performance in First College English Course of Core and Non Core Curriculum Students (By Jurisdiction)

	% With 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Anne Arundel	89%	81%	2.7	2.4
Baltimore City	89%	86%	2.6	2.4
Baltimore	88%	80%	2.6	2.3
Frederick	89%	74%	2.5	2.2
Lower Shore	91%	90%	2.7	2.8
Somerset	96%	92%	2.8	3.0
Wicomico	92%	90%	2.7	2.9
Worchester	86%	89%	2.6	2.4
Mid Maryland	90%	80%	2.7	2.3
Carroll	93%	80%	2.7	2.3
Howard	89%	80%	2.7	2.3
Montgomery	86%	80%	2.6	2.3
Prince George's	86%	76%	2.5	2.1
Southern Maryland	87%	79%	2.6	2.2
Calvert	88%	78%	2.7	2.3
Charles	85%	79%	2.5	2.2
St. Mary's	90%	78%	2.6	2.2
Susquehanna	89%	82%	2.6	2.3
Cecil	90%	90%	2.6	2.6
Harford	89%	80%	2.6	2.3
Upper Shore	86%	82%	2.6	2.5
Caroline	93%	93%	2.9	2.6
Dorchester	87%	100%	2.5	2.8
Kent	82%	85%	2.3	2.7
Queen Anne's	82%	82%	2.5	2.5
Talbot	86%	64%	2.8	1.9
Western Maryland	94%	88%	2.9	2.6
Allegany	95%	91%	2.8	2.7
Garrett	93%	100%	2.9	2.9
Washington	94%	82%	2.9	2.4
ALL MARYLAND	**88%**	**81%**	**2.6**	**2.3**

Table 4
Cumulative Grade Point Average After First Year of Core and Non Core Curriculum Students (By Jurisdiction)

	Core	Non-Core
Anne Arundel	2.5	2.2
Baltimore City	2.4	2.0
Baltimore	2.4	2.1
Frederick	2.6	2.3
Lower Shore	2.4	2.3
Somerset	2.4	2.1
Wicomico	2.4	2.4
Worchester	2.4	2.2
Mid Maryland	2.6	2.2
Carroll	2.6	2.2
Howard	2.6	2.2
Montgomery	2.5	2.2
Prince George's	2.3	2.0
Southern Maryland	2.5	2.3
Calvert	2.5	2.4
Charles	2.5	2.3
St. Mary's	2.6	2.2
Susquehanna	2.6	2.3
Cecil	2.7	2.5
Harford	2.5	2.2
Upper Shore	2.3	2.3
Caroline	2.6	2.5
Dorchester	2.2	1.8
Kent	2.2	2.2
Queen Anne's	2.3	2.5
Talbot	2.5	1.9
Western Maryland	2.7	2.6
Allegany	2.7	2.5
Garrett	2.9	2.9
Washington	2.7	2.5
ALL MARYLAND	**2.5**	**2.2**

Table 5

Percent of Core and Non Core Curriculum Students Needing Remediation in College (By Institution)

	Math		English		Reading	
	Core	Non-Core	Core	Non-Core	Core	Non-Core
Community Colleges						
Allegany	50%	60%	34%	44%	21%	33%
Anne Arundel	38%	51%	12%	23%	24%	34%
Baltimore City	62%	75%	69%	84%	60%	75%
Carroll	12%	22%	18%	20%	2%	8%
Catonsville	21%	36%	19%	37%	28%	48%
Cecil	26%	57%	22%	23%	24%	43%
Charles	24%	38%	17%	27%	17%	29%
Chesapeake	19%	36%	17%	32%	8%	18%
Dundalk	58%	65%	39%	49%	8%	30%
Essex	30%	48%	19%	32%	32%	37%
Frederick	39%	66%	22%	36%	11%	16%
Garrett	68%	93%	36%	47%	24%	40%
Hagerstown	64%	79%	32%	40%	11%	14%
Harford	50%	60%	12%	21%	6%	6%
Howard	59%	60%	40%	59%	27%	41%
Montgomery	33%	47%	18%	31%	14%	27%
Prince George's	33%	54%	21%	38%	22%	35%
Wor-Wic	6%	23%	22%	45%	30%	55%
All Community Colleges	**35%**	**50%**	**21%**	**35%**	**20%**	**33%**
University of Maryland						
Bowie	41%	45%	31%	40%	27%	38%
Coppin	55%	69%	35%	40%	13%	4%
Frostburg	12%	8%	-	-	-	-
Salisbury	*	0%	*	4%	*	0%
Towson	8%	11%	15%	19%	6%	13%
UMBC	4%	6%	*	*	-	-
UMCP	21%	21%	-	-	-	-
UMES	38%	50%	25%	36%	31%	50%
All University of Maryland	**17%**	**22%**	**6%**	**11%**	**6%**	**12%**
Morgan	20%	18%	11%	11%	13%	17%
All Public Four-Year	**17%**	**21%**	**6%**	**11%**	**6%**	**12%**
Independents						
Capitol College	17%	31%	17%	38%	-	-
Hood	53%	21%	34%	21%	13%	14%
Loyola	*	0%	-	-	-	-
Mount St. Mary's	41%	42%	-	-	-	-
Villa Julie	19%	25%	5%	9%	8%	11%
All Independents	**12%**	**12%**	**3%**	**5%**	**2%**	**3%**
All Campuses	**24%**	**38%**	**12%**	**24%**	**12%**	**24%**

* Less than 0.5 percent

Notes: St. Mary's, College of Notre Dame, Goucher, Johns Hopkins, Maryland Institute of Art, Peabody, St. John's, Washington College and Western Maryland do not have remedial programs. UMCP, Frostburg, Loyola and Mount St. Mary's do not offer remediation in English and reading, and UMBC and Capitol do not offer these programs in reading

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Table 6
Performance in First College Math Course of Core and Non Core Curriculum Students (By Institution)

	% with 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Community Colleges				
Allegany	74%	76%	2.4	2.6
Anne Arundel	71%	66%	2.2	2.0
Baltimore City	78%	45%	2.4	1.5
Carroll	78%	75%	2.3	2.3
Catonsville	71%	62%	2.1	1.8
Cecil	65%	91%	2.2	2.7
Charles	85%	69%	2.6	2.3
Chesapeake	74%	93%	2.3	2.5
Dundalk	68%	50%	2.1	1.8
Essex	74%	47%	2.2	1.5
Frederick	79%	68%	2.3	2.1
Garrett	100%	100%	3.1	4.0
Hagerstown	95%	83%	3.1	2.5
Harford	69%	81%	2.2	2.4
Howard	72%	63%	2.4	1.9
Montgomery	67%	67%	2.0	2.0
Prince George's	59%	57%	1.8	1.8
Wor-Wic	87%	75%	2.8	2.5
All Community Colleges	**73%**	**65%**	**2.2**	**2.0**
University of Maryland				
Bowie	64%	55%	2.0	1.6
Coppin	86%	89%	2.7	2.8
Frostburg	75%	71%	2.0	2.0
Salisbury	88%	89%	2.7	2.7
Towson	79%	76%	2.5	2.4
UMBC	77%	82%	2.5	2.6
UMCP	73%	68%	2.3	2.1
UMES	81%	73%	2.5	2.1
All University of Maryland	**76%**	**72%**	**2.3**	**2.2**
Morgan	79%	64%	2.4	2.1
St. Mary's	86%	63%	2.5	2.1
All Public Four-Year	**76%**	**71%**	**2.3**	**2.2**
Independents				
Capitol College	67%	69%	1.6	2.3
Goucher	97%	100%	3.3	2.8
Hood	86%	93%	2.8	3.2
Loyola	95%	89%	3.1	2.8
Mount St. Mary's	92%	100%	2.8	2.9
Notre Dame	89%	93%	2.7	2.6
St. Johns	80%	-	2.9	-
Villa Julie	89%	90%	2.9	2.5
Washington College	83%	100%	2.7	2.6
Western Maryland	85%	69%	2.8	2.5
All Independents	**89%**	**88%**	**2.8**	**2.7**
All Campuses	**76%**	**70%**	**2.4**	**2.1**

Notes: Johns Hopkins does not provide students with letter grades in their first semester, so average grades are not available for first math course.

Table 7
Performance in First College English Course of Core and Non Core Curriculum Students (By Institution)

	% with 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Community Colleges				
Allegany	96%	92%	2.9	2.9
Anne Arundel	83%	74%	2.5	2.1
Baltimore City	97%	85%	2.7	2.2
Carroll	87%	69%	2.3	1.9
Catonsville	89%	74%	2.6	2.1
Cecil	83%	89%	2.3	2.5
Charles	81%	77%	2.4	2.2
Chesapeake	77%	84%	2.6	2.5
Dundalk	88%	85%	2.7	2.5
Essex	78%	72%	2.2	2.0
Frederick	84%	68%	2.4	2.0
Garrett	100%	100%	2.9	3.1
Hagerstown	91%	78%	2.8	2.2
Harford	82%	77%	2.4	2.1
Howard	82%	68%	2.5	2.0
Montgomery	76%	68%	2.2	1.9
Prince George's	75%	68%	2.2	2.0
Wor-Wic	86%	93%	2.6	2.9
All Community Colleges	**82%**	**73%**	**2.4**	**2.1**
University of Maryland				
Bowie	98%	93%	2.4	2.3
Coppin	98%	100%	2.8	2.7
Frostburg	89%	89%	2.4	2.3
Salisbury	94%	96%	2.7	2.8
Towson	95%	83%	2.8	2.4
UMBC	94%	91%	3.0	2.9
UMCP	90%	85%	2.8	2.5
UMES	94%	91%	2.8	2.6
All University of Maryland	**93%**	**88%**	**2.7**	**2.5**
Morgan	90%	89%	2.7	2.6
St. Mary's	92%	93%	3.0	3.1
All Public Four-Year	**92%**	**89%**	**2.7**	**2.6**
Independents				
Capitol College	73%	100%	1.8	2.7
Goucher	98%	92%	3.2	2.8
Hood	95%	100%	2.9	2.9
Loyola	98%	97%	3.0	2.8
MD Institute of Art	95%	100%	3.4	3.1
Mount St. Mary's	88%	94%	2.5	2.7
Notre Dame	97%	95%	3.0	2.7
Peabody	100%	100%	3.8	3.0
St. Johns	70%	-	2.6	-
Villa Julie	84%	75%	2.3	2.1
Washington College	97%	100%	3.0	2.6
Western Maryland	94%	97%	2.8	2.7
All Independents	**93%**	**91%**	**2.8**	**2.6**
All Campuses	**88%**	**81%**	**2.6**	**2.3**

Notes: Johns Hopkins does not provide students with letter grades in their first semester, so average grades are not available for first English course.

Table 8

Cumulative Grade Point Average After First Year of Core and Non Core Curriculum Students (By Institution)

	Core	Non-Core
Community Colleges		
Allegany	2.6	2.3
Anne Arundel	2.3	2.0
Baltimore City	2.2	1.7
Carroll	2.4	2.0
Catonsville	2.3	1.9
Cecil	2.8	2.6
Charles	2.5	2.3
Chesapeake	2.1	2.2
Dundalk	2.2	2.2
Essex	2.0	1.7
Frederick	2.5	2.3
Garrett	2.9	2.8
Hagerstown	2.8	2.4
Harford	2.2	2.1
Howard	2.3	2.0
Montgomery	2.2	1.9
Prince George's	2.1	1.9
Wor-Wic	2.2	1.8
All Community Colleges	**2.3**	**2.0**
University of Maryland		
Bowie	2.4	2.3
Coppin	2.4	2.3
Frostburg	2.4	2.3
Salisbury	2.7	2.8
Towson	2.6	2.4
UMBC	2.5	2.5
UMCP	2.6	2.4
UMES	2.5	2.3
All University of Maryland	**2.6**	**2.4**
Morgan	2.4	2.2
St. Mary's	2.8	2.7
All Public Four-Year	**2.6**	**2.4**
Independents		
Capitol College	1.6	2.1
Goucher	2.9	2.7
Hood	2.5	2.8
Johns Hopkins	2.9	3.2
Loyola	3.0	2.8
MD Institute of Art	3.1	2.7
Mount St. Mary's	2.6	2.9
Notre Dame	2.9	2.7
Peabody	3.6	3.4
St. Johns	2.5	-
Villa Julie	2.6	2.4
Washington College	2.7	2.8
Western Maryland	2.8	2.6
All Independents	**2.8**	**2.6**
All Campuses	**2.5**	**2.2**

Note: Grade point averages for Johns Hopkins represent just the second semester.

Table 9

Percent of Core and Non Core Curriculum Students Needing Remediation in College (By Gender and Race)

	Math		English		Reading	
	Core	Non-Core	Core	Non-Core	Core	Non-Core
Gender						
Men	22%	35%	13%	27%	11%	24%
Women	26%	41%	12%	24%	12%	25%
Race						
African-American	38%	53%	24%	43%	25%	43%
Asian	11%	13%	8%	13%	9%	15%
White	21%	34%	9%	19%	8%	17%
Other	31%	33%	14%	15%	12%	15%

Table 10

Performance in First Math Course of Core and Non Core Curriculum Students (By Gender and Race)

	% with 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Gender				
Men	72%	66%	2.2	2.0
Women	80%	74%	2.5	2.3
Race				
African-American	73%	61%	2.2	1.9
Asian	79%	75%	2.5	2.3
White	77%	72%	2.4	2.2
Other	73%	69%	2.2	2.0

Table 11
Performance in First English Course of Core and Non Core Curriculum Students (By Gender and Race)

	% with 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Gender				
Men	85%	77%	2.4	2.1
Women	91%	84%	2.7	2.5
Race				
African-American	87%	80%	2.5	2.2
Asian	91%	82%	2.8	2.3
White	89%	81%	2.6	2.3
Other	86%	76%	2.4	2.3

Table 12
Cumulative Grade Point Average After First Year of Core and Non Core Curriculum Students (By Gender and Race)

	Core	Non-Core
Gender		
Men	2.3	2.0
Women	2.6	2.3
Race		
African-American	2.2	1.9
Asian	2.6	2.4
White	2.5	2.3
Other	2.3	2.2

Table 13
Results of Multiple Regression Analysis Using Grade in First Math Course as Dependent Variable

Step	Independent Variable	R	R^2	R^2 Change	T	Sig T	Correlation
1	High School GPA	.2606	.0679	.0679	9.713	.0000	.2606
2	Average Grade Math	.2937	.0863	.0184	7.271	.0000	.2081
3	SAT Math Score	.3035	.0921	.0058	5.108	.0000	.1869
4	Honors Math	.3105	.0964	.0043	2.178	.0294	.1817
5	Honors Languages	.3169	.1004	.0040	3.523	.0004	.1613
6	SAT Verbal Score	.3170	.1005	.0001	-1.360	.1740	.1312
7	Type of Campus	.3196	.1022	.0016	2.421	.0155	.1127
8	Gender	.3332	.1110	.0089	6.658	.0000	.1004

Table 14
Results of Multiple Regression Analysis Using Grade in First English Course as Dependent Variable

Step	Independent Variable	R	R^2	R^2 Change	T	Sig T	Correlation
1	High School GPA	.2577	.0664	.0664	9.799	.0000	.2577
2	SAT Verbal Score	.3097	.0959	.0295	8.994	.0000	.2387
3	Average Grade English	.3263	.1065	.0105	6.003	.0000	.1993
4	Honors English	.3331	.1109	.0045	3.825	.0001	.1941
5	Years Studied Language	.3373	.1138	.0028	3.114	.0019	.1345
6	SAT Math Score	.3416	.1167	.0029	-1.539	.1239	.1352
7	Gender	.3541	.1254	.0087	6.627	.0000	.1352

Table 15
Results of Multiple Regression Analysis Using Grade Point Average as Dependent Variable

Step	Independent Variable	R	R^2	R^2 Change	T	Sig T	Correlation
1	High School GPA	.3506	.1229	.1229	14.204	.0000	.3506
2	SAT Verbal Score	.3925	.1541	.0311	9.030	.0000	.2701
3	Average Grade English	.4165	.1734	.0194	5.602	.0000	.2619
4	Avg. Grade Social Science	.4194	.1759	.0025	4.207	.0000	.2348
5	Honors English	.4239	.1797	.0038	2.308	.0210	.2221
6	Honors Calculus	.4261	.1815	.0018	3.703	.0002	.1962
7	Years Studies Languages	.4292	.1842	.0026	3.062	.0022	.1470
8	Gender	.4411	.1946	.0104	7.565	.0000	.1378